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[54] **HIGH NITROGEN CONTAINING DUPLEX STAINLESS STEEL HAVING HIGH CORROSION RESISTANCE AND GOOD STRUCTURE STABILITY**

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[58] **Field of Search** 420/57, 58, 59, 52, 420/65, 67; 148/325, 327

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[57] **ABSTRACT**

According to the invention there is a high nitrogen containing duplex stainless steel with high corrosion resistance and good structure stability. Characteristic is the analysis of the alloy being in % by weight max 0.05% C, 23–27% Cr, 5.5–9.0% Ni, 0.25–0.40% N, max 0.8% Si, max 1.2% Mn, 3.5–4.9% Mo, max 0.5% Cu, max 0.5% W, max 0.010% S, max 0.5% V, max 0.18% Ce and Fe and normally present impurities, at which the contents of the alloying elements are so adjusted that the ferrite content after solution heat treatment at about 1075° C. amounts to 30–55%. The analysis of the steel is so optimized that it in solution heat treated, cold worked and also welded condition is particularly suitable for use in such environments where the presence of chloride ions gives rise to a high corrosivity.

8 Claims, 2 Drawing Sheets